

Q1 through the primary circulation pump 11, the coolant flow passage C12 of the fuel cell 1, the primary heat exchanger 15 and the thermostat-controlled valve 17. In addition, the primary coolant, which circulates through the primary heat exchanger 15, flows through the coolant flow passage C12 of the fuel cell 1 and absorbs heat produced thereby while cooling the same, allowing the primary heat exchanger 15 to achieve heat exchange with the secondary coolant of the secondary circulation passage 14 for thereby discharging heat. Thus, the temperature of the primary coolant is maintained at 85°C at the inlet side of the primary heat exchanger 15 and is maintained at 75°C at the outlet side of the primary heat exchanger 15.

Please replace the paragraph extending from page 17, line 26 to page 18, line 23 with the following new paragraph.

Q2 On the other hand, the secondary coolant flows first from the secondary circulation pump 13 through the primary heat exchanger 15 of the first circulation flow passage 14A and the intercooler 3D into the second heat exchanger 16 and also flows through the water jacket (not shown) of the electric vehicle motor 2 of the secondary circulation flow passage 14B, the water jacket (not shown) of the power drive unit 8, the water jacket (not shown) of the drive motor 3E and water jacket (not shown) formed in the heat sink of the output power current control device 6 into the secondary heat exchanger 16. Then, the secondary coolant circulates into the secondary circulation pump 13. When circulated, the secondary coolant absorbs heat in heat exchange with the primary coolant of the primary circulation passage 12 via the primary heat exchanger 15. When the secondary coolant passes through the intercooler 3D, the

AB secondary coolant absorbs heat in heat exchange with air compressed with the supercharger 3C of the air supply system 3 and, also, cools the electric vehicle motor 2, the drive motor 3E, the power drive unit 8 and the output power current control device 6 while absorbing heat, discharging heat in heat exchange with the flow of outside air drawn by the electric cooling fan 19 or air flow created during traveling of the vehicle. In this manner, the temperature of the secondary coolant is maintained at 70°C at the inlet side of the secondary heat exchanger 16 and at 60°C at the outlet side of the secondary heat exchanger 16.

Please replace the paragraph extending from page 20, line 26 to page 21, line 11 with the following new paragraph:

AB The secondary circulation passage 14 includes a main circulation flow passage 14C wherein the secondary coolant is circulated through the secondary circulation pump 13, the first heat exchanger 15, the intercooler 3D and the second heat exchanger 16 and the second circulation pump 13. Further, the secondary circulation passage 14 includes a sub-circulation flow passage 14D wherein the secondary coolant is circulated from the secondary circulation pump 13 through the third heat exchanger 21, the electric vehicle motor 2, which is the source of heat, the power drive unit 8, the drive motor 3E of the supercharger 3C, the output power current control device 6 and the second heat exchanger 16 to the secondary circulation pump 13.

Please replace the paragraph extending from page 21, line 23 to page 22, line 10 with the following new paragraph:

OH The first heat exchanger 15 is a liquid type heat exchanger adapted to cool the primary coolant, which is circulated through the primary circulation passage 12, with the use of the secondary coolant which is circulated through the main circulation flow passage 14C of the secondary passage 14. Further, the second heat exchanger 16 is an air-cooling type heat exchanger equipped with the electric cooling fan 19, wherein the secondary coolant, which is circulated through the secondary circulation passage 14, is cooled with air flow created by the electric cooling fan 19. Furthermore, the third heat exchanger 21 is an air-cooling type heat exchanger equipped with the electric cooling fan 22 wherein the secondary coolant, which is circulated through the sub-circulation flow passage 14D, is cooled with air flow created by the electric cooling fan 22.

Please replace the paragraph extending from page 22, line 21 to page 23, line 18 with the following new paragraph:

OP That is, under conditions wherein the pump drive motor 20 is rotating at a prescribed speed and the second and third heat exchangers 16 and 21 discharge heat at the prescribed temperature in heat exchange with the given amount of air flow and the fuel cell 1 generates the maximum power output, the flow rate of the primary circulation pump 11 is determined such that the temperature difference between the temperature of the primary coolant flowing through the inlet side of the first heat exchanger 15 and the temperature of the primary coolant flowing through the outlet of the first heat exchanger 15 remains within a prescribed value (that is, for example, 10°C). Also, the flow rate of the secondary circulation pump 13 is determined such that

the temperature of the primary coolant flowing through the outlet side of the first heat exchanger 15 remains within the prescribed value (that is, for example, 75°C). In particular, the ratio of the flow rates of the primary and secondary circulation pumps 11 and 13 is determined such that the temperature of the primary coolant flowing at the inlet side of the first heat exchanger 15 remains at 85°C, the temperature of the primary coolant flowing at the outlet side of the first heat exchanger 15 remains at 75°C, the temperature of the secondary coolant flowing through the outlet side of the second heat exchanger 16 remains at 60°C and the temperature of the secondary coolant flowing through the inlet side of the second heat exchanger 16 remains at 70°C.

Please replace the paragraph extending from page 27, line 14 to page 28, line 3 with the following new paragraph:

On the other hand, since the second preferred embodiment of the cooling system of the fuel cell powered vehicle includes the first heat exchanger 15 which functions as a heat discharge unit for the primary coolant which cools the fuel cell 1, and the second and third heat exchangers which function as heat discharging units for the secondary coolant which cools the heat generating source composed of the electric vehicle motor 2, the drive motor 3E of the supercharger 3C, the power drive unit 8 and the output power current control unit 6, it is possible to prevent the heat exchangers to be largely sized while avoiding an increased size of the cooling system. In addition, since the first heat exchanger 15 is arranged in a configuration wherein the primary coolant of the primary circulation passage 12 is heat exchanged with the secondary